CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.08/KRIDL/CEMENT/2014-15

Date: 05.08.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager,** KRIDL, Bangalore.
NAME OF THE WORK	:	Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.
REFERENCE	:	AEE/KG/WO/606/2014-15 Dated: 04.08.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	495 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	26.00 %	-

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ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರ
ಕೂಡಿಗೇಹಳ್ಳಿ ಉಪವಿಭಾಗ
ಯಲಹಂಕ ವಲಯ, ಬಿ.ಬಿ.ಎಂ.ಪಿ
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Job No.: CTCE/BBMP/W.No.08/KRIDL/SAND/2014-15 : 05.08.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.

Reference : AEE/KG/WO/606/2014-15 Dated: 04.08.2014

Date of Testing : 05.08.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	103	5.15	5.15	94.9	90-100
2.36	227	11.35	16.50	83.5	75-100
1.18	515	25.75	42.25	57.8	55-90
600 Micron	418	20.90	63.15	36.9	35-59
300 Micron	481	24.05	87.20	12.8	8-30
150 Micron	210	10.50	97.70	2.3	0-10

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Job No.: CTCE/BBMP/W.No.08/KRIDL/AGG/2014-15 : 05.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.

Reference : AEE/KG/WO/606/2014-15 Dated: 04.08.2014

Date of Testing : 05.08.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25500**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	990	3.88	3.88	96.12	95-100
20	15345	60.18	64.06	35.94	30-70
10	6150	24.12	88.18	11.82	10-35
4.75	2585	10.14	98.31	1.69	0-5

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Job No.: CTCE/BBMP/W.No.08/KRIDL/STEEL/2014-15 05.08.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager**, KRIDL, Bangalore.
Name of the work	:	Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.
Reference	:	AEE/KG/WO/606/2014-15 Dated: 04.08.2014
Date of Test	:	05.08.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	552	13.25	O.K	O.K

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Job No.: CTCE/BBMP/W.No.08/KRIDL/CUBE/2014-15 25.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager,** KRIDL, Bangalore.
Name of the work	: Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.
Reference	: AEE/KG/WO/606/2014-15 Dated: 04.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.08.2014	23.09.2014	8.263	475.3	21.12
2	26.08.2014	23.09.2014	8.394	516.5	22.96
3	26.08.2014	23.09.2014	8.475	520.4	23.13

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Job No.: CTCE/BBMP/W.No.08/KRIDL/CUBE/2014-15 24.09.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the work : Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.

Reference : AEE/KG/WO/606/2014-15 Dated: 04.08.2014

Sample ID : Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.08.2014	24.09.2014	8.120	478.3	21.26
2	27.08.2014	24.09.2014	8.260	496.3	22.06
3	27.08.2014	24.09.2014	8.364	516.5	22.96

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TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the work : Providing Culvert at Hanumaiah Layout, Kodigehalli Village in Ward No.08, BBMP, Bangalore.

Reference : AEE/KG/WO/606/2014-15 Dated: 04.08.2014

Sample ID : Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.08.2014	25.09.2014	8.190	488.3	21.70
2	28.08.2014	25.09.2014	8.257	506.3	22.50
3	28.08.2014	25.09.2014	8.339	518.3	23.04

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